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1/5/1 (Item 1 from file: 351)  
 DIALOG(R)File 351:DERWENT WPI  
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WPI Acc No: 87-343117/198749

XRPX Acc No: N87-256920

Motorised throttle for IC engine - has restraining plate preventing full closure of throttle plate to define idling position

Patent Assignee: HITACHI LTD (HITA )

Inventor: ISHIZAWA I; TAMAKI S

Number of Countries: 003 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
DE 3718313	A	19871203	DE 3718313	A	19870601		198749 B
US 4809659	A	19890307	US 8756653	A	19870602		198912
DE 3718313	C2	19940707	DE 3718313	A	19870601	F02D-009/10	199425
US 34906	E	19950418	US 8756653	A	19870602	F02D-009/08	199521
			US 90559060	A	19900730		
			US 92929517	A	19920814		
KR 9504963	B1	19950516	KR 875357	A	19870529	F02M-069/00	199703
			KR 9115069	A	19910830		

Priority Applications (No Type Date): JP 86125756 A 19860602

Patent Details:

Patent	Kind	Lan	Pg	Filing Notes	Application	Patent
DE 3718313	A		4			
US 4809659	A		4			
DE 3718313	C2		4			
US 34906	E		7	Cont of	US 90559060	
				Reissue of		US 4809659
KR 9504963	B1			Div ex	KR 875357	

Abstract (Basic): DE 3718313 A

The throttle uses a stepping motor (5) to adjust the opening of the throttle plate (2) in dependence on the detected depression of the accelerator pedal (9). The stepping motor (5) is coupled to the throttle plate (2) via a drive coupling (10) with a restraining plate (14) acting between the bearing (16) for the throttle plate axis (3) and the drive coupling (10) to control the rotation of the throttle plate axis (3) in the throttle closure direction and hold the throttle plate (2) open.

Pref. the latter is defined by a threaded setting screw (12) acting on the restraining plate (14) and adjusted from outside the throttle housing

Title Terms: MOTOR; THROTTLE; IC; ENGINE; RESTRAIN; PLATE; PREVENT; FULL; CLOSURE; THROTTLE; PLATE; DEFINE; IDLE; POSITION

Derwent Class: Q52; X22

International Patent Class (Main): F02D-009/08; F02D-009/10; F02M-069/00

International Patent Class (Additional): F02D-009/02; F02D-011/10

File Segment: EPI; EngPI

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DIALOG(R)File 347:JAPIO  
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02368032

THROTTLE VALVE ASSEMBLY OF MOTOR DRIVEN THROTTLE VALVE

PUB. NO.: 62-284932 [JP 62284932 A]  
PUBLISHED: December 10, 1987 (19871210)  
INVENTOR(s): TAMAKI SHIGEO  
ISHIZAWA ISAMU  
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 61-125756 [JP 86125756]  
FILED: June 02, 1986 (19860602)  
INTL CLASS: [4] F02D-009/02; F02D-011/10  
JAPIO CLASS: 21.2 (ENGINES & TURBINES, PRIME MOVERS -- Internal  
Combustion)  
JOURNAL: Section: M, Section No. 699, Vol. 12, No. 169, Pg. 142, May  
20, 1988 (19880520)

ABSTRACT

PURPOSE: To stably prevent a throttle valve from being caught into the wall face of an intake cylinder by providing a limiting member for limiting a rotation in a valve closing direction near a totally closed position, on a throttle valve shaft part in between a bearing part for removably supporting said throttle valve shaft and a gear mechanism for transmitting the rotation of a motor to said throttle valve shaft.

CONSTITUTION: When an accelerator 9 is stepped in, a stepping motor 5 is rotated in accordance with the output of an accelerator opening detector 8 via a control circuit 6, thereby, rotating a throttle valve shaft 3 via a gear mechanism 11, to control the opening of a throttle valve 2. The opening of the throttle valve 2 is detected by a throttle valve opening detecting device 4, the output of which feedback controls the stepping motor 5. In this case, a limiting member 14 is provided on a throttle valve shaft part in a position between a bearing part on the motor installing side for removably supporting the throttle valve shaft 3 and the gear mechanism 11, to prevent the throttle valve 2 from rotating beyond a part at which the valve 2 is brought into contact with an adjusting screw 12 when it is rotated to a defined position near a totally closed position.